SULTAN QABOOS UNIVERSITY

COURSE OUTLINE

PROGRAM: Bachelor of Science in Plant Sciences

1. Course Code	PLNT3522	
2. Course Title	Plant Pathology	
3. Credits	3 Cr Hrs , 12 Cr Points, 6 ECTS	
4. Pre-requisite Course(s)	BIOL2101	
5. Co-requisite Course(s)		
6. Equivalent Course(s)	CROP3522, PROT3522	
7. Incompatible Course(s)		
8. Course Category	☐ University Requirement	☐ University Elective
	☐ College Requirement	☐ College Elective
	☒ Department Requirement	☐ Department Elective
	☐ Specialization Requirement	☐ Specialization Elective
	☐ Other (specify):	
9. Course Owner	College: CAMS	Department: Plant Sciences
10. Course Type	☐ Lecture	☒ Lecture/Lab
	☐ Lecture/Seminar	☐ Lecture/Studio
	☐ Lecture/Tutorial	☐ Lecture/Lab/Tutorial or Seminar
	☐ Tutorial	☐ Laboratory (Practical)
	☐ Field or Work Placement	☐ Studio
	☐ Seminar	☐ Internship
	☐ Workshop	☐ Project
11. Language of Instruction	English	

12. Course Description

This course aims to give basic information on the nature and causes of plant diseases and covers topics such as types of plant pathogens, how pathogens cause disease, plant resistance to the pathogens, classification, life history and control of economically important plants diseases caused by fungi, bacteria, viruses and nematodes

13. Teaching/Learning Strategies

Lectures
Field trips
Laboratory reports and assignments
Presentations

14. Assessment Components and Weight [%]

☒ Quizzes 10	☒ Practical 15	☒ Other (specify): Lab final 10%
☐ Homework assignments	☒ Project 5	
☒ In-term examination(s) 20	☒ Final examination 40	

15. Grading Method

☒ A-F Scale ☐ Pass/Not passed

16. Textbook(s) and Supplemental Material

Agrios, G.N. (2005). Plant Pathology (5th edition). Academic Press, NY.

17. Matching Course Objectives with Program Outcomes and SQU Graduate Attributes

SQU Graduate Attributes		
A. SQU graduates should be able to: 1. apply the knowledge and skills relevant to the specialization 2. communicate effectively and use information and communication technologies 3. critically analyze complex information and present it in simple clear manner	**B. SQU graduates possess** 1. interpersonal communication skills and alignment with culture of international labour market to assist them in practical life and in living successfully 2. skills and motivation for independent learning and engagement in lifelong learning and research 3. work ethics and positive values, and intellectual independence and autonomy 4. teamwork skills and display potential leadership qualities	**C. SQU graduates should** relish good citizenship qualities, be conscious of their national identity and be socially responsible, engage in community affairs and be mindful of contemporary issues.

#	Intended Student Learning Outcome /Course Learning Objective	Relevant Program Outcome(s)	Applicable Attribute(s)
1.	Identify different types of pathogens that attack plants, their signs and symptoms	Graduates will have knowledge and skills in crop sciences	A1
2.	Classify fungi, prokaryotes, viruses and nematodes	Graduates will have knowledge and skills in crop sciences	A1
3.	Describe life history of economically important diseases caused by fungi, bacteria, viruses and nematodes	Graduates will have knowledge and skills in crop sciences	A1
4.	Demonstrate skills in isolation, identification and characterization of plant pathogens	Graduates will have knowledge and skills in crop sciences Graduates will be motivated to engage in independent life-long learning	A1, B2
5.	Describe management options for selected plant diseases in Oman	Graduates will have knowledge and skills in crop sciences Graduates will be able to identify and analyze problems related to crop production systems, and formulate realistic solutions	A1
6.	Take part in Labs and field trips	Graduates will be motivated to engage in independent life-long learning Graduates will understand and follow professional and social norms and ethics.	B2, B3
7.	Write report on selected project and present results	Graduates will have ability to effectively communicate orally and in writing Graduates will be able to analyze and interpret data, draw conclusion and propose solutions to different issues in crop production, landscape design, and crop protection	A2, A3
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16. Student Responsibilities
It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include attendance requirement and students` academic code of conduct. For attendance, it is the student's responsibility to be punctual and to attend all classes. Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details, please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy. Additionally, this course requires that you: Submit assignmnts on or before due date

COURSE INFORMATION			
Course Code	PLNT3522	**Course Title**	Plant Pathology
Semester/ Year	Fall	**Section(s)**	10, 11
Day, Time, and Place			

Course Coordinator	Abdullah Mohammed Al-Sadi		
Office Location	CAMS, Dean's office	**Office Hours**	
Office Tel. Ext.	1200	**Email**	alsadi@squ.edu.om

Tentative Schedule			
Week	**Lecture #**	**Topic/Material to be covered**	**Assessment**
1	Lec Lab	Introduction to the course Introduction to Plant Pathology lab	
2	Lec 1 Lab 1	The concept of diseases in plants, Parasitism and pathogenicity Morphology of Fungi	
3	Lec 2 Lab 2	Stages in disease development, How pathogens attack plants Plant disease symptoms & signs	Lab reports (15%)
4	Lec 3 Lab 3	How plants defend themselves Isolation of fungi from diseased plant materials-1	
5	Lec 4 Lab 4	Introduction to fungi - Classification, Oomycota Isolation of fungi from diseased plant materials-2	Quiz 1 (5%)
6	Lec 5 Lab 5	Clasification of fungi - Zygomycota, Ascomycota Production of disease by plant pathogenic fungi	
7	Lec 6 Lab 6	Classification of fungi - Basidiomycota Classification of fungi-1	
8	Lec 7 Lab 7	 Classification of fungi-2	Mid-term (20%)
9	Lec 8 Lab 8	Prokaryotes Morphology of bacteria	
10	Lec 9 Lab	Prokaryotes, Plant Disease Management Isolation and inoculation of plant pathogenic bacteria	
11	Lec 10 Lab 10	Viruses Mechanical transmission of plant viruses	
12	Lec 11 Lab 11	Viruses Field trip	Quiz 2 (5%)
13	Lec 12 Lab 12	Nematodes Recovering nematodes from roots and soils	
14		Presentations	Final Lab exam (10%)
15		Presentations	Project (5%)
16			Final Exam (40%)

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APPENDIX A: INSTRUCTORS OF MULTIPLE SECTIONS					
Section	**Instructor**	**Day, Time, and Place**	**Office Location and Extension**	**Email**	**Office Hours**

APPENDIX B: ADDITIONAL INFORMATION